1/22/87 A3273-8

Vol. 62 No. 1 January 1987

JOURNAL OF Medical Education

PUBLICATION OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Factors Affecting Ratings of Clinical Teachers by Medical Students and Residents
David M. Irby, Gerald M. Gillmore, and Paul G. Ramsey

Evaluation of a Preentrance Enrichment Program for Minority Students Admitted to Medical School
Augustine Ugbolue, Patricia N. Whitley, and Phyllis J. Stevens

Survey of Attitudes Among Three Specialties in a Teaching Hospital Toward Alcoholics
Karen W. Bander, Deberah S. Goldman, Michael A. Schwartz, Edward Rabinowitz, and Joseph T. English

A Controlled Experiment in Teaching Students To Respond to Patients' Emotional Concerns
Fredric M. Wolf, James O. Woolliscroft, Judith G. Calhoun, and Grace J. Boxer

Teaching the Difficult Interview in a Required Course on Medical Interviewing
Marian R. Block and John L. Coulehan

Journal of Medical Education

Volume 62 • Number 1 • January 1987

Factors Affecting Ratings of Clinical Teachers by Medical Students and Residents—David M. Irby, Gerald M. Gillmore, and Paul G. Ramsey 1

Evaluation of a Preentrance Enrichment Program for Minority Students Admitted to Medical School—Augustine Ugbolue, Patricia N. Whitley, and Phyllis J. Stevens 8

Survey of Attitudes Among Three Specialties in a Teaching Hospital Toward Alcoholics—Karen W. Bander, Deberah S. Goldman, Michael A. Schwartz, Edward Rabinowitz, and Joseph T. English 17

A Controlled Experiment in Teaching Students To Respond to Patients' Emotional Concerns—Fredric M. Wolf, James O. Woolliscroft, Judith G. Calhoun, and Grace J. Boxer 25

Teaching the Difficult Interview in a Required Course on Medical Interviewing—Marian R. Block and John L. Coulehan 35

Family Practice Residents' Evaluation of a Competency-Based Psychiatry Curriculum—Samuel E. Gaskins, Lee W. Badger, Stephen H. Gehlbach, and Deborah R. Coggins 41

Training Pediatric Residents in Early Intervention with Handicapped Children—Tim Wysocki, Vymutt J. Gururaj, Mary Ann Rogers, and Gloria Galey 47

Communications: Participation of Medical Students in the Care of Patients with AIDS—James P. Whalen 53

Psychiatry Clerkships at U.S. Medical Schools—Harvey L. Abrams, Penelope Wasson Dralle, and Mollie M. Wallick 55

Comparing the Number of Journals Available for Publication of Papers by Faculty Members in the Clinical Specialties—Howard K. Rabinowitz 58

Teaching Clinical Reasoning in a Clinical Clerkship by Use of Case Assessments—Martha G. Regan-Smith 60

Factors That Motivate Physician Faculty Members in a Medical School To Teach CME Courses—Robert H. Younghouse, Jr. 63

Medical Students' Attitudes Toward the Autopsy as an Educational Tool—Henry D. Tazelaar, Henry Schneiderman, Lisa Yaremko, and Ronald S. Weinstein 66

Briefs 68

Editorial: Themes for the Coming Year 70

Book Reviews 72

Bibliography 74

Officers of the Association and Members of the Executive Council, 1986–87

CHAIRMAN: Edward J. Stemmler, *University of Pennsylvania*
CHAIRMAN-ELECT: John W. Colloton, *University of Iowa Hospitals and Clinics*
IMMEDIATE PAST CHAIRMAN: Virginia V. Weldon, *Washington University*
PRESIDENT: Robert G. Petersdorf, *AAMC, Washington, D.C.*

COUNCIL OF DEANS
Louis J. Kettel, *University of Arizona**
William T. Butler, *Baylor College of Medicine*
D. Kay Clawson, *University of Kansas*
Robert S. Daniels, *LSU at New Orleans*
William B. Deal, *University of Florida*
Walter F. Leavell, *Meharry Medical College*
John Naughton, *SUNY at Buffalo*
Richard S. Ross, *Johns Hopkins University*
Hibbard E. Williams, *UC at Davis*

COUNCIL OF ACADEMIC SOCIETIES
Frank G. Moody, *University of Texas, Houston**
David H. Cohen, *Northwestern University*
William F. Ganong, *UC at San Francisco*
Douglas E. Kelly, *University of Southern California*

COUNCIL OF TEACHING HOSPITALS
Spencer Foreman, *Montefiore Medical Center**
J. Robert Buchanan, *Massachusetts General Hospital*
Gary Gambuti, *St. Luke's-Roosevelt Hospital Center*
C. Thomas Smith, *Yale-New Haven Hospital*

ORGANIZATION OF STUDENT REPRESENTATIVES
Vicki Darrow, *University of Washington**
Kimberly Dunn, *University of Texas, Houston*

DISTINGUISHED SERVICE MEMBER
Edward N. Brandt, Jr., *University of Maryland*

* Chairman of respective organization.

Comparing the Number of Journals Available for Publication Of Papers by Faculty Members in the Clinical Specialties

Howard K. Rabinowitz, M.D.

The mission of U.S. medical schools is based on the classic triad of research, teaching, and patient care. Recent economic changes, however, have forced clinical medical faculties to generate additional funds through patient care activities at the expense of research and teaching (1). At the same time, financial concern has also caused medical schools to reevaluate their policies of promotion and tenure (2, 3).

While a number of important issues have been identified with regard to the area of promotion (for example, teaching, patient care, and administration), scholarly activity in the form of papers accepted by peer review for publication in a scholarly journal is a primary requirement that exists in every medical school (4). Despite the fact that the different clinical departments have varying requirements and unique needs, promotion guidelines tend to have minimum criteria that apply across the board in all specialties. In this paper, the author addresses the issue of whether equivalent opportunities for publication are available to medical school faculty members in the different clinical specialties.

Methods

The number of full-time budgeted faculty positions (filled and vacant) and the number of senior faculty members (associate professor and professor) in U.S. medical schools (1984–85) were determined for each of the 16 clinical departments from data published by the American Medical Association (5). Professional journals listed in *Index Medicus* (1985) were then classified according to similar clinical departments on the basis of their title or listing in the subject index. Subspecialty journals were included with their clinical specialty departments (for example, cardiology with medicine, child psychiatry with psychiatry, and neurosurgery with surgery). Those journals utilized in large degree by faculty members in multiple specialties (for example, *Journal of the American Medical Association* and *Journal of Medical Education*) or not clearly clinically oriented (for example, *Microbiology* and *Pharmacology*) were not included. For comparison purposes, the ratio of faculty positions per journal was calculated by dividing the total number of faculty members by the number of journals in their respective specialty department. In addition, the relationship between the ratio of journals per faculty member (number of journals divided by the number of faculty members) and the percent of senior faculty members (number of associate professors and professors divided by the number of total faculty) was determined by use of a linear regression.

Results

The number of full-time budgeted faculty positions for each clinical department, the number and percent of senior faculty members (professor and associate professor), the number of professional journals in their respective departments, and the ratio of the number of faculty positions to the number of journals are shown in Table 1. Of the 16 clinical specialties, 14 (88 percent) had a faculty-journal ratio in the range of 12 to 60. Anesthesiology had a higher ratio of 118.4 positions per journal, while the ratio in family medicine was 500 faculty positions per journal, eight to 40 times greater than the other specialties. There was a positive correlation between the number of journals per faculty position and the percent of senior faculty members ($r = 0.65$), although the degree of this relationship might be some-

Dr. Rabinowitz is associate professor of family medicine and clinical assistant professor of pediatrics, Jefferson Medical College of Thomas Jefferson University, Philadelphia, Pennsylvania.

TABLE 1

Full-Time Budgeted (Filled and Vacant) Faculty Positions and Number and Percent of Senior Faculty Positions in U.S. Medical Schools (1984–85), Number of Journals Listed in *Index Medicus* by Specialty (1985), and Ratio of Faculty Positions per Journal

Clinical Departments	Full-Time Positions	Senior Faculty Members		No. of Journals	Ratio of Positions Per Journal
		No.	Percent		
Anesthesiology	2,724	865	32	23	118.4
Dermatology	439	231	53	31	14.1
Family medicine	1,999	713	36	4	500.0
Medicine	12,700	5,976	47	875	14.5
Neurology	1,795	859	48	145	12.4
Obstetrics/gynecology	2,425	1,107	46	117	20.7
Ophthalmology	1,075	538	50	53	20.3
Orthopedics	793	383	48	34	23.3
Otolaryngology	641	315	49	38	16.9
Pediatrics	5,564	2,572	46	94	59.2
Physical medicine	658	212	32	18	36.6
Psychiatry	5,586	2,404	43	118	47.3
Public health and preventive medicine	1,057	523	49	88	12.0
Radiology	4,133	1,872	45	81	51.0
Surgery	4,738	2,530	53	143	33.1
Urology	350	214	61	23	15.2
Total/Mean	47,559	21,314	46	1,885	25.2

what overestimated because the denominators in both factors are the same.

For the two clinical departments that had few journals (faculty-journal ratio > 100), only 33.4 percent of their faculty members were at the professor or associate professor level, while for the six departments with a large number of journals (faculty-journal ratio < 20), 47.8 percent of the faculty members were at the senior faculty level. In addition, of the nine clinical specialties that were overrepresented with regard to journals (less than the mean faculty-journal ratio of 25.2), the percentage of senior faculty members in all nine departments were equal to or greater than the mean percentage of senior faculty members for all 16 departments. Likewise, of those seven specialties that were underrepresented with journals, the percentage of senior faculty members in six departments (all except surgery) was equal to or less than the mean percentage.

Discussion

Although publication requirements for medical school faculty members for promotion purposes vary by institution, they remain an important factor in each school. The data presented in this paper indicate that variation exists regarding the number of journals available for publication among faculty members from different clinical departments. In addition, there was a positive relationship between the number of medical journals available for publication within a specialty and the percent of senior faculty members within each corresponding clinical department.

While this paper has used *Index Medicus* to determine the number of journals available in each discipline, *Index Medicus* represents only a portion of the medical literature and includes some nonrefereed journals while excluding some refereed journals. In addition, the categorization of journals by specialty is, to some extent, arbitrary, since some specialty journals are available for faculty members in more than one specialty. These limitations, however, apply across all disciplines.

A number of possible explanations exist for the data obtained in this study. The number of journals might accurately reflect the

amount of scholarly activity within each discipline. In the case of family medicine, it is possible that the small number of journals reflects the relative youth of the specialty or the broad nature of the discipline, in which scholarly activity might be reported in the internal medicine or pediatric literature. On the other hand, it is possible that some disciplines (for example, those with ratios of 12 to 15 faculty members for each journal) may have a greater forum available for publication than those disciplines with a greater faculty-journal ratio. Questions then arise as to how much competition is necessary to maintain quality. That is, when a large number of journals are available in one area, is the quality of published material maintained?

The fact that some specialties have a larger forum for publication and a higher percentage of senior faculty members than others leads to questions concerning the use of published papers for promotion purposes. This complex and sensitive issue requires further study.

References

1. PETERSDORF, R. G. Is the Establishment Defensible? *N. Engl. J. Med.*, **309**:1053–1057, 1983.
2. REYNOLDS, R. C. Faculty Promotion and Tenure. *J. Med. Educ.*, **57**:200–201, 1982.
3. SMYTHE, C. MCC., JONES, A. B., and WILSON, M. P. Tenure in Medical Schools in the 1980s. *J. Med. Educ.*, **57**:349–360, 1982.
4. GJERDE, C. L., and COLOMBO, S. E. Promotion Criteria: Perceptions of Faculty Members and Departmental Chairmen. *J. Med. Educ.*, **57**:157–162, 1982.
5. CROWLEY, A. E., ETZEL, S. I., and PETERSEN, E. S. Undergraduate Medical Education. *J.A.M.A.*, **254**:1565–1572, 1985.

Teaching Clinical Reasoning in a Clinical Clerkship By Use of Case Assessments

Martha G. Regan-Smith, M.D.

Problem-oriented learning is an efficient method for students to develop knowledge, reasoning skills, and study skills simultaneously (1, 2). Further, problem-based learning provides a mechanism by which basic science material can be applied to clinical patient problems and that promotes improved retention, better understanding, and sounder clinical skills (3). Therefore, because the educational objective of clinical clerkships is to teach the student how to integrate basic science information with the clinical skills and competencies necessary to diagnose, treat, and care for patients (4), problem-based learning is well suited to clerkship teaching.

Usually, clerkship students work up cases already diagnosed before admission or work up cases along with ward team members, who as a group diagnose the patient problem. Independent thought on the student's part is not required or evaluated, and students often reflect what the attending physician and/or house staff members say and think. The student can merely read about the diseases and drugs involved and recite the information to the attending physician in order to appear bright and knowledgeable on teaching rounds. In order to determine whether a student can assess a patient problem independently, a mechanism is needed to provide an opportunity to solve problems and think critically through real patient cases with unknown diagnoses (5). Small group sessions during which students use other students' cases as unknown case problems force the students to think and to solve clinical patient problems. At the same

Dr. Regan-Smith is assistant dean for clinical education, associate professor of medicine, and former medicine clerkship director, Dartmouth Medical School, Hanover, New Hampshire.